

FIRE DOOR CONTROL SYSTEM AND METHOD INCLUDING PERIODIC SYSTEM TESTING

ABSTRACT OF THE DISCLOSURE

A fire door control system permits user input during regular use and during alarm conditions. The system utilizes primary and secondary power sources and incorporates a variety of preventive safeguards assuring that functionality of the fire door control system will not be lost. The system utilizes primary power when possible in all alarm conditions. However, during alarm conditions when primary power is lost or when a hand crank hoist remains dangerously engaged, the system is bumplessly connected to a secondary power source and a fire door of the system is closed with the aid of a clutch that directly connects the drive input with an axle that supports the fire door. The clutch pulses on and off to control the descent of the door. The system includes an electronic controller for coordinating the operation of elements of the system and for implementing a method of controlling a fire door system.